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NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

03/09/2004

Patrick J O'Shea Esq
Samuels Gauthier & Stevens LLP
Suite 3300
225 Franklin Street
Boston, MA 02110

EXAMINER

DABNEY, PHYLESHEA LARVINIA

ART UNIT

PAPER NUMBER

2643

76 417

DATE MAILED: 03/09/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/665,894	09/20/2000	Wolfgang Bachmann	WESTPHAL.5754	6825

TITLE OF INVENTION: DOOR WITH STRUCTURAL COMPONENTS CONFIGURED TO RADIATE ACOUSTIC ENERGY

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$0	\$1330	06/09/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

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B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

☐ Applicant claims SMALL ENTITY status.
See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail**

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CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

7590

03/09/2004

Patrick J O'Shea Esq
Samuels Gauthier & Stevens LLP
Suite 3300
225 Franklin Street
Boston, MA 02110

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

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nonprovisional	NO	\$1330	\$0	\$1330	06/09/2004

EXAMINER	ART UNIT	CLASS-SUBCLASS
DABNEY, PHYLESHA LARVINIA	2643	381-152000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1	_____
2	_____
3	_____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent); ☐ individual ☐ corporation or other private group entity ☐ government

4a. The following fee(s) are enclosed:

- ☐ Issue Fee
- ☐ Publication Fee
- ☐ Advance Order - # of Copies _____

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- ☐ A check in the amount of the fee(s) is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

Director for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature)

(Date)

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450.

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225 Franklin Street
Boston, MA 02110

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 225 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 225 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

Notice of Allowability

Application No.

09/665,894

Examiner

Phylesha L Dabney

Applicant(s)

BACHMANN ET AL.

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/20/04.
2. ☒ The allowed claim(s) is/are 2,8,9,11-15,17,18,21,22 and 24-31.
3. ☒ The drawings filed on 20 September 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


CURTIS KUNTZ
SUPERVISORY PATENT/EXAMINER
TECHNOLOGY CENTER 2600

17/D

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 20 January 2004 has been entered. Claims 2, 8-9, 11-15, 17-18, 21-22, 24-31 are pending.

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Patrick O'Shea on 04 March 2004.

The application has been amended as follows:

In The Claims:

1. (Cancelled)

D 2. (Currently Amended) A door, comprising:

a door frame; and

a door leaf that swings on hinges in said door frame and receives an electrical input

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signal, said door leaf including front and rear cover panels with a first transducer device mounted therein, wherein said door leaf acts as a loudspeaker and includes a ~~stiff, light~~ structural part that maintains fed-in vibrational energy and by flexural waves propagates this energy in at least one active surface perpendicular to its thickness to distribute resonance mode vibration components over at least one surface, which has a first location within it for said first transducer device, which is ~~entirely and exclusively~~ affixed on the structural part at said first location to set the structural part into vibration and to allow it to resonate, thus creating an acoustic radiator that delivers an acoustic output signal when it vibrates in resonance, said front and/or said rear cover panel of the door leaf being part of said stiff, light structural component,

D wherein the electrical input signal is conducted from said door frame to said door leaf over at least one hinge, and a second transducer is mounted in a second recess between said front and rear cover panels, wherein said second transducer is orientated to drive said rear parallel cover panel to resonance in order to deliver a rearward launched acoustic output wave, and said first and second transducers are separated by a flexible damping support element.

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

¹⁰ 8. (Currently Amended) A door, comprising:

a door frame;

D a door leaf that swings on hinges in said door frame and receives an electrical input signal, said door leaf including front and rear cover panels with a first transducer device mounted therein, wherein said door leaf acts as a loudspeaker and includes a ~~stiff, light~~ structural part that maintains fed-in vibrational energy and by flexural waves propagates this energy in at least one active surface perpendicular to its thickness to distribute resonance mode vibration components over at least one surface, which has a first location within it for said first transducer device, which is ~~entirely and exclusively~~ affixed on the structural part at said first location to set the structural part into vibration and to allow it to resonate, thus creating an acoustic radiator that delivers an acoustic output signal when it vibrates in resonance, said front and/or said rear cover panel of the door leaf being part of said stiff, light structural component, wherein said door leaf has at least one bass reflex opening, and a second transducer mounted in a second recess between said front and rear cover panels,

wherein said second transducer is orientated to drive said rear parallel cover panel to resonance in order to deliver a rearward launched acoustic output wave, and said first and second transducers are separated by a flexible damping support element.

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29. (Currently Amended) The door of claim ¹2, wherein said front cover panel is equipped with a clamping device that maintains said ~~stiff, light~~ structural part of said front and/or rear cover panel under an adjustable amount of tension.

10. (Cancelled)

3
11. (Previously Presented) The door leaf of claim ¹2, wherein said first transducer comprises an electrodynamic inertial vibration driver.

4
12. (Previously Presented) The door leaf of claim ¹2, wherein said first transducer comprises a piezoelectric driver.

7
13. (Currently Amended) The door leaf of claim ¹2, wherein said ~~stiff, light~~ structural part comprises a nomex honeycomb structure.

8
14. (Currently Amended) The door leaf of claim ¹2, wherein said ~~stiff, light~~ structural part comprises an aluminum honeycomb structure.

9
15. (Currently Amended) The door leaf of claim ¹2, wherein said ~~stiff, light~~ structural part comprises a high resistance foam.

16. (Cancelled)

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⁴
~~17~~. (Currently Amended) The door leaf of claim ³~~11~~, further comprising an adjustable clamping device that controls the amount of tension in the region of said ~~stiff, light~~ structural part to selectively change the acoustic properties of said ~~stiff, light~~ structural part.

⁵
~~18~~. (Original) The door leaf of claim ⁴~~17~~, wherein said front cover and said rear cover include multilayer pinewood veneer.

19. (Cancelled)

20. (Cancelled)

① ¹¹
~~21~~. (Currently Amended) The door leaf of claim ¹⁰~~8~~, further comprising an adjustable clamping device that controls the amount of tension in the region of said ~~stiff, light~~ structural part to selectively change the acoustic properties of said ~~stiff, light~~ structural part.

¹²
~~22~~. (Currently Amended) The door leaf of claim ¹⁰~~8~~, wherein said ~~stiff, light~~ structural part comprises a nomex honeycomb structure.

23. (Cancelled)

¹³
~~24~~. (Previously Presented) A door, comprising:

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a door frame; and

a door leaf that swings on hinges in said door frame and receives an electrical input signal, said door leaf including front and rear cover panels with a first transducer device mounted therein, wherein said door leaf acts as a loudspeaker and includes a stiff, light structural part that maintains fed-in vibrational energy and by flexural waves propagates this energy in at least one active surface perpendicular to its thickness to distribute resonance mode vibration components over at least one surface, which has a first location within it for said first transducer device, which is affixed on the structural part at said first location to set the structural part into vibration and to allow it to resonate, thus creating an acoustic radiator that delivers an acoustic output signal when it vibrates in resonance, said front and/or said rear cover panel of the door leaf being part of said stiff, light structural component,

D wherein the electrical input signal is conducted from said door frame to said door leaf over at least one hinge, and a second transducer is mounted in a second recess between said front and rear cover panels, wherein said second transducer is orientated to drive said rear parallel cover panel to resonance in order to deliver a rearward launched acoustic output wave, and said first and second transducers are separated by a flexible damping support element.

¹⁴
~~25~~ (Previously Presented) The door of claim ¹³~~24~~, wherein said first transducer includes an electrodynamic inertial vibration driver.

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¹⁵
~~26~~. (Previously Presented) The door of claim ¹³~~24~~, wherein said front cover panel is equipped with a clamping device that maintains said stiff, light structural part of said front and/or rear cover panel under an adjustable amount of tension.

¹⁶
~~27~~. (Previously Presented) The door leaf of claim ¹³~~24~~, further comprising an adjustable clamping device that controls the amount of tension in the region of said stiff, light structural part to selectively change the acoustic properties of said stiff, light structural part.

¹⁷
~~28~~. (Previously Presented) The door leaf of claim ¹³~~24~~, wherein said first transducer comprises a piezoelectric driver.

¹⁸
~~29~~. (Previously Presented) The door leaf of claim ¹³~~24~~, wherein said stiff, light structural part comprises a nomex honeycomb structure.

¹⁹
~~30~~. (Previously Presented) The door leaf of claim ¹³~~24~~, wherein said stiff, light structural part comprises an aluminum honeycomb structure.

²⁰
~~31~~. (Previously Presented) The door leaf of claim ¹³~~24~~, wherein said stiff, light structural part comprises a high resistance foam.

Reasons For Allowance

The following is an examiner's statement of reasons for allowance:

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The instant application is deemed to be directed to a nonobvious improvement over the invention patented in Patent Numbers (Azima, 6377695; Azima, 6332029; Wright, 4862011; and Bertolini, 6226927). The improvement comprises a first transducer; and a second transducer mounted in a second space between the front and rear cover panels for driving the rear parallel cover panel to resonance, wherein the first and second transducers are separated by a damping element, as substantially connected and described with the other functional language of the claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phylesha L Dabney whose telephone number is 703-306-5415. The examiner can normally be reached on Mondays, Tuesdays, Wednesdays, Fridays 8:30-5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 703-305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

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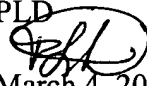
Or faxed to:

(703) 872-9314, for formal communications intended for entry and for informal or draft communications, please label "Proposed" or "Draft" when submitting an informal amendment.

(703) 306-0377, for customer service questions.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

PLD


March 4, 2004


CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600